NPS Form 10-900
(Oct. 1990)

OMB No. 10024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

1. Name of Property

historic name Polar Wave Ice and Fuel Company, Plant No. 6

other names/site number N/A

2. Location

street & number 502 LaSalle Street [n/a] not for publication

city or town St. Louis [n/a] vicinity

state Missouri code MO county St. Louis (Independent City) code 510 zip code 63104

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this [X] nomination [ ] request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property [X] meets [ ] does not meet the National Register criteria. I recommend that this property be considered significant [ ] nationally [ ] statewide [X] locally.
(See continuation sheet for additional comments [ ].)

Mark A. Miles 06/06/06

Signature of certifying official/Title Mark A. Miles/Deputy SHPO Date

Missouri Department of Natural Resources
State or Federal agency and bureau

In my opinion, the property [ ] meets [ ] does not meet the National Register criteria.
(See continuation sheet for additional comments [ ].)

Signature of certifying official/Title

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

[ ] entered in the National Register
See continuation sheet [ ].
[ ] determined eligible for the National Register
See continuation sheet [ ].
[ ] determined not eligible for the National Register.
[ ] removed from the National Register
[ ] other, explain
See continuation sheet [ ].

Signature of the Keeper Date

5. Classification

Ownership of Property

[X] private
[ ] public-local
[ ] public-State
[ ] public-Federal

Category of Property

[X] building(s)
[ ] district
[ ] site
[ ] structure
[ ] object

Number of Resources within Property

Contributing	Noncontributing	
1	0	buildings
		sites
		structures
		objects
1	0	Total

Name of related multiple property listing.

N/A

Number of contributing resources previously listed in the National Register.

N/A

6. Function or Use

Historic Function

INDUSTRY/PROCESSING/EXTRACTION/
manufacturing facility

Current Functions

VACANT

7. Description

Architectural Classification

NO STYLE

Materials

foundation STONE/Limestone
walls BRICK
roof ASPHALT
other

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria

[X] **A** Property is associated with events that have made a significant contribution to the broad patterns of our history

[ ] **B** Property is associated with the lives of persons significant in our past.

[ ] **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

[ ] **D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

Property is:

[ ] **A** owned by a religious institution or used for religious purposes.

[ ] **B** removed from its original location.

[ ] **C** a birthplace or grave.

[ ] **D** a cemetery.

[ ] **E** a reconstructed building, object, or structure.

[ ] **F** a commemorative property.

[ ] **G** less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
INDUSTRY

Periods of Significance
1894-1896 c.a. - 1947

Significant Dates
1894-1896
1907

Significant Person(s)
N/A

Cultural Affiliation
N/A

Architect/Builder
Clymer, Harry G., Architect

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographic References

Bibliography
(Cite the books, articles and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

[ ] preliminary determination of individual listing (36 CFR 67) has been requested

[ ] previously listed in the National Register

[ ] previously determined eligible by the National Register

[ ] designated a National Historic Landmark

[ ] recorded by Historic American Buildings Survey

#_____

[ ] recorded by Historic American Engineering Record

#_____

Primary location of additional data:

[X] State Historic Preservation Office

[ ] Other State Agency

[ ] Federal Agency

[ ] Local Government

[ ] University

[ ] Other:

Name of repository:_____

10. Geographical Data

Acreage of Property under I acre

UTM References

A. Zone	Easting	Northing	B. Zone	Easting	Northing
15	744280	4277920			

C. Zone	Easting	Northing	D. Zone	Easting	Northing

[ ] See continuation sheet

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Karen Bode Baxter, Mandy K. Ford, Timothy P. Maloney, Kevin O'Sullivan

organization Karen Bode Baxter, Preservation Specialist date May 31, 2006

street & number 5811 Delor telephone (314) 353-0593

city or town St. Louis state Missouri zip code 63109

Additional Documentation
Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional Items
(Check with the SHPO or FPO for any additional items)

Property Owner
(Complete this item at the request of SHPO or FPO.)

name Ice House #6 of St. Louis, LLC c/o Mat Librach, contact

street & number 11728 Holly Springs Lane telephone (314) 591-5022

city or town St. Louis state Missouri zip code 63146

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Narrative Description

SUMMARY

The Polar Wave Ice and Fuel Company, Plant No. 6 is located in the industrial area south of downtown St. Louis on the southwest corner of LaSalle and Broadway. What appears to be three separate buildings is actually interconnected buildings all first constructed in 1894-1896 as a single industrial complex that underwent major repairs or reconstruction in 1906-1907 after what was apparently severe damage in the 1896 tornado. This complex includes a parapeted, red brick, one story building with a raised limestone foundation (possibly the portion of foundation from the original factory) at the corner of LaSalle and Broadway that has a freight dock facing LaSalle. Behind it is what appears to be a two story (but is in fact one story internally) red brick commercial building that faces Broadway. Along the west side of both of these sections and facing LaSalle is an even taller red brick ice storage building with the characteristic air ventilation slots in series just below its parapeted, flat roof. The plant extends to the alley on the west (which has been named French Market Court) and nearly a half block to the south. Since this is where 4th Street merges with South Broadway, the long east elevation now faces eight lanes of traffic, but the building's main entrance faces north onto the two lane street, LaSalle. It is less than a half-block north of the location where U. S. Highway 55 crosses over South Broadway. Although modern street widening, as well as highway construction, have changed the landscape in the area, the immediate surroundings (between Broadway and 8th Street to the west and from Chouteau (one block north of LaSalle) south to Highway 55 where Broadway and 7th Street merge) retain the historic character that mixes industrial and warehouse buildings with small commercial buildings and even a public school. Within two city blocks are: Weisert Tobacco Company (NR listed, 6/16/04) cater-cornered across French Market Court (facing 6th), the Madison Public School (facing east on 7th) and the Moloney Electric Company (NR listed, 3/28/02) facing west on 7th, mixed among other warehouse and commercial buildings.

EXTERIOR FEATURES

One Story, Freight Dock Building (Northeast Corner of Complex)

The one story, shorter height building at the southwest corner of the intersection has a rock faced ashlar limestone foundation that extends nearly to the windowsills and matches the height of the loading dock platform along LaSalle. On both street elevations, the parapeted red brick walls have a clay coping tile cap. A simple stepped brick course with crenellation forms a band just below the tile cap. The parapet is basically flat along 4th, but forms a stepped parapet along the LaSalle façade. The north end of the building was used for ice storage historically and some sections of the wall still have the vertical slits in the brick for air passage. There is a large flat roofed, wood framed clerestory centered on the rooftop that is surrounded by a series of 9 light wood framed windows that provide light and ventilation into the interior.

Centered beneath the stepped parapet on the north façade is a long metal shed roof supported by massive metal braces that covered the loading dock platform which was originally the same length as the roof. At the east end, of this section is a flat headed stone lintel above the entry door that consists of a single light wood framed door with flanking wood framed sidelights. This portion of the loading dock platform is still intact. Metal steps with a simple pipe hand rail lead down to the east, parallel to the building. Off-centered to its west is a six (horizontal) panel wooden door, a segmental arched freight door opening (that is boarded in at present) and another similar wood paneled door. This door has a segmental brick arch still visible in the brickwork above. These two wood paneled doors provide clear connections to the ice industry since they have strap hinges and locker door latches, although the west door is less well constructed and an obvious later alteration. At the far west end of the façade (beyond the canopy and loading dock) is an overhead doorway with a flat lintel opening that extends to the ground. Its wood paneled sliding door has a man door within one panel.

On the long east elevation, this shorter one story building has windows clustered near the north end and on south half. Under the large plywood panel are three paired eight-over-eight wood sash window openings. South of these windows is an overhead door flanked on the north by paired sash windows. Three sets of paired windows extend south from the overhead door opening. The overhead door opening is a more recent alteration since the brick header course lintel matching the other windows is visible in the brickwork above the doorway. The window openings have dressed limestone sills.

Narrative Description (continued)

Two Story Height Building Facing Broadway (South End of Complex)

The taller section at the south end of the complex served as the manufacturing center. Historically, this section housed a massive 42 foot tall cooling tower on its roof, a 120 ton ice machine, and large generator. Both the cooling tower and machinery have been removed but subsequent occupants. It has the same stepped brick course with crenellations near its clay tiled parapet along the east elevation as there is on the north elevation. Its façade was originally symmetrical, divided into two bays with triple sashed windows in each upper level window opening. Each of these openings has three doublehung wood sashed windows with a wider center window unit and header course brick lintels and limestone sills. Below, each bay originally had a large round arched brick opening with a quadruple header brick arch, but the south opening has been infilled with brick and a small man door while the north opening has been modified as a rectangular overhead door. The section also has a rock faced ashlar limestone foundation but it is much shorter than that of the adjacent section to the north.

The south elevation originally had a series of three segmental arched windows, with three rows of header brick forming the arched openings. The sills of these windows are limestone. The east and west openings have been bricked in, but the middle opening is simply boarded over. On the interior, the pair of nine-over-nine wood sashed, doublehung windows are still intact. The west opening was probably boarded after 1951 when the loading dock on the adjacent property was built against this window opening. This side wall also has clay coping tiles and the rock faced ashlar limestone foundation is tiered up toward the rear, possibly indicative of remnants of the original 1894-1896 complex.

The north elevation above the shorter one story section has two additional segmental arched openings, but these are slightly shorter than those on the south wall. The one intact opening has paired six-over-six windows.

Ice Storage Building (West Side of Complex)

Across the rear (west side) of the original plant, the ice storage building looms up to a height of three stories, but it is in reality a single story building with massive steel trusses spanning the interior and resting on concrete interior piers that support the brick walls. Clay coping tiles cap the parapets and a series of slots in the upper brick walls are clustered just below the parapet on the LaSalle façade as well as the front two thirds of the Broadway elevation. Historically there was a segmental arched overhead door opening on the façade, but this has been converted into a flat opening with a man door to its west, alterations that are shown in the building permit files for 1947 when the ice house closed. There are small windows, one on the façade and one around on the west alley wall, which were installed at that time for the small corner office.

The west elevation, along the alley (French Market Court) is devoid of openings, with the exception of two loading dock doors near the rear that share a steel lintel and concrete dock floor set within the brick opening. Behind this opening, the rock faced ashlar limestone foundation is raised to the height of the dock, but in front there is only a small section of the concrete foundation visible.

The east wall has no openings and abuts the loading dock of the adjacent building.

INTERIOR FEATURES

The interior of the one story freight dock section has wood floors in the northeast corner, but poured concrete floors elsewhere that are recessed below the outside grade. The exposed wooden ceiling/roof rafters in this building are supported by steel I-beams with simple cast iron pipe columns. Although the original walls all appear to have been exposed brick, framing with horizontal board planking has been added in some areas. In recent years, the northeast corner has been remodeled with drywall partitions to serve as offices. The large clerestory opens into the interior with its exposed rafters and 9 light windows.

The interior of the south section also has poured concrete floors. The limestone foundation walls as well as the brick walls are exposed. Above, the wood joists and decking of the roof are exposed. A large opening spans most of the area between the one story freight dock section and this south section, supported by a steel I-beam and pipe columns. Additional steel supports hug the interior walls along the north and south sides, to reinforce the solid masonry walls. The east elevation wall shows clearly the two large infilled arched openings that originally contained as massive entry doors. On the west wall, there is a large opening to the ice storage building on the west, which is spanned by a steel lintel. Since the floor level of the ice storage building is not as deep, this creates a raised platform, but the contiguous stone foundation of both sections supports the building permit record that the entire complex was completed at the same time.

Narrative Description (continued)

The interior of the ice storage building also has a poured concrete floor, the series of concrete pilaster piers along both the east and west sides that rise up to support the steel trusses, creating an interior space uninterrupted by columns. Above the trusses, the wood rafters support the wooden roof decking. The wooden, sliding loading dock doors are positioned near the rear of the west elevation.

ALTERATIONS AND INTEGRITY ISSUES

According to building permit files, the convent on the site was demolished at the end of 1893 and by the time the 1897 Whipple fire map was published, the current complex configuration had been finished. However, it appears the 1896 tornado may have done considerable damage to the complex since permits were issued in 1906 and 1907 for a reconstructed plant that retained the original layout and possibly portions of the walls. The entire complex was finished by 1907 based upon building permits with minor repairs and alterations made to this original complex in 1919 and again in 1921. In 1947, when the building changed ownership and was no longer used by Polar Wave, the tall ice storage facility was modified on the exterior (changing the door), as evidenced in elevation drawings on file with the building permits at city hall. At some point, the large loading dock entries on the east elevation, south end were infilled with brick, although the arched openings are still intact. The large open interior spaces that soar up two and even three stories high, with few windows, and no floor divisions also identifies this as an industrial facility that originally housed large refrigeration equipment (including a 120 ton ice machine and a 90 kilowatt generator) as well as an immense amount of block ice. The bases of the 42 feet tall cooling tower are still visible on the rear of the south building's roof. Except for some office partitions at the north end, the interior retains the open floor plates, exposed structural supports, and masonry walls that characterize this industrial complex. Although some of the windows and freight door openings have been altered, the building retains a high degree of physical integrity, clearly indicative of its origins as an ice manufacturing facility. The monolithic ice storage building along the west side of the complex distinguishes this as a cold storage facility with its lack of windows and slit vents.

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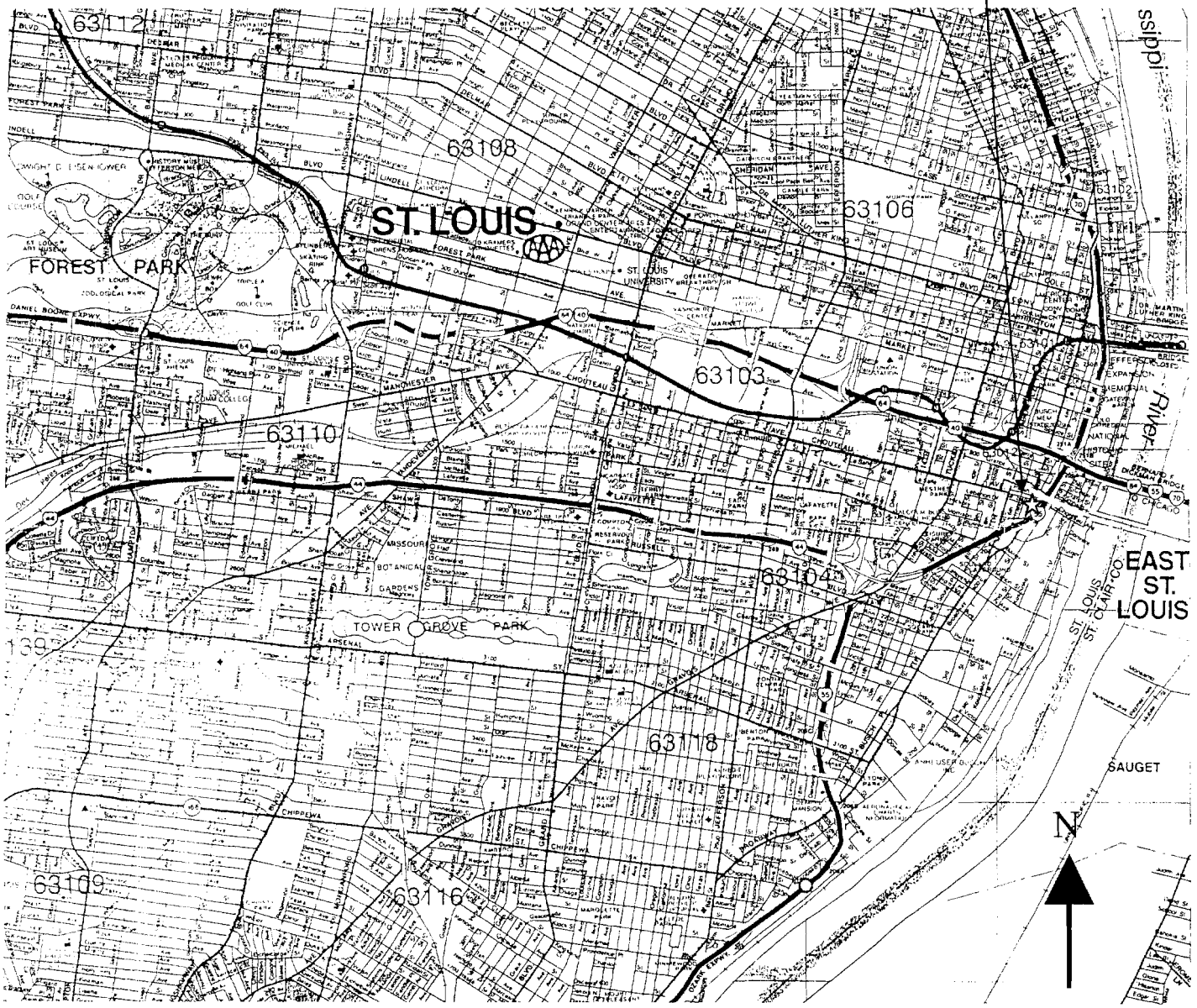
Map of City of St. Louis, MO **Locating Property**



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Polar Wave Ice and Fuel Company, Plant No. 6
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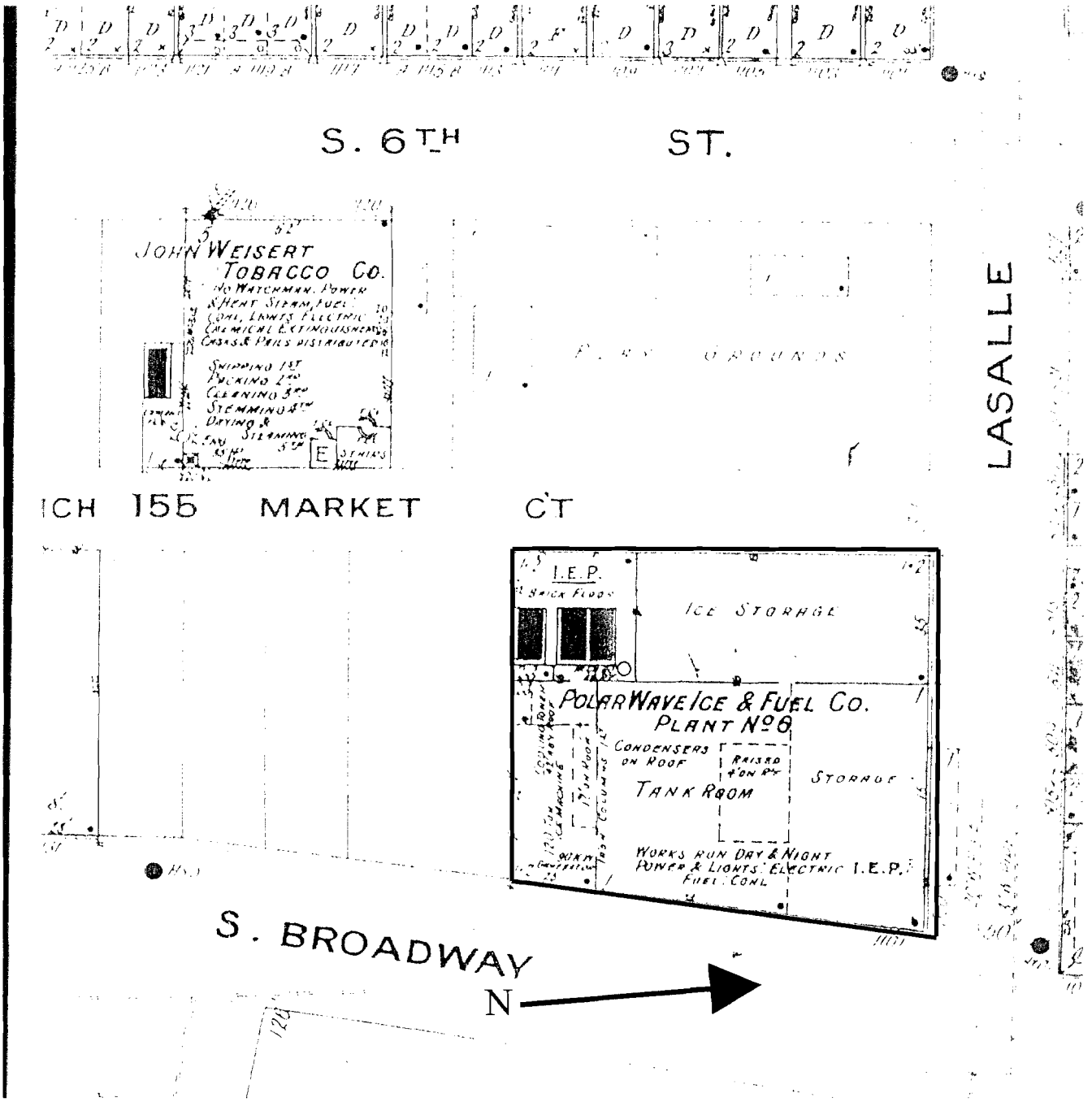
Site Plan of Property **From Sanborn Fire Insurance Maps**



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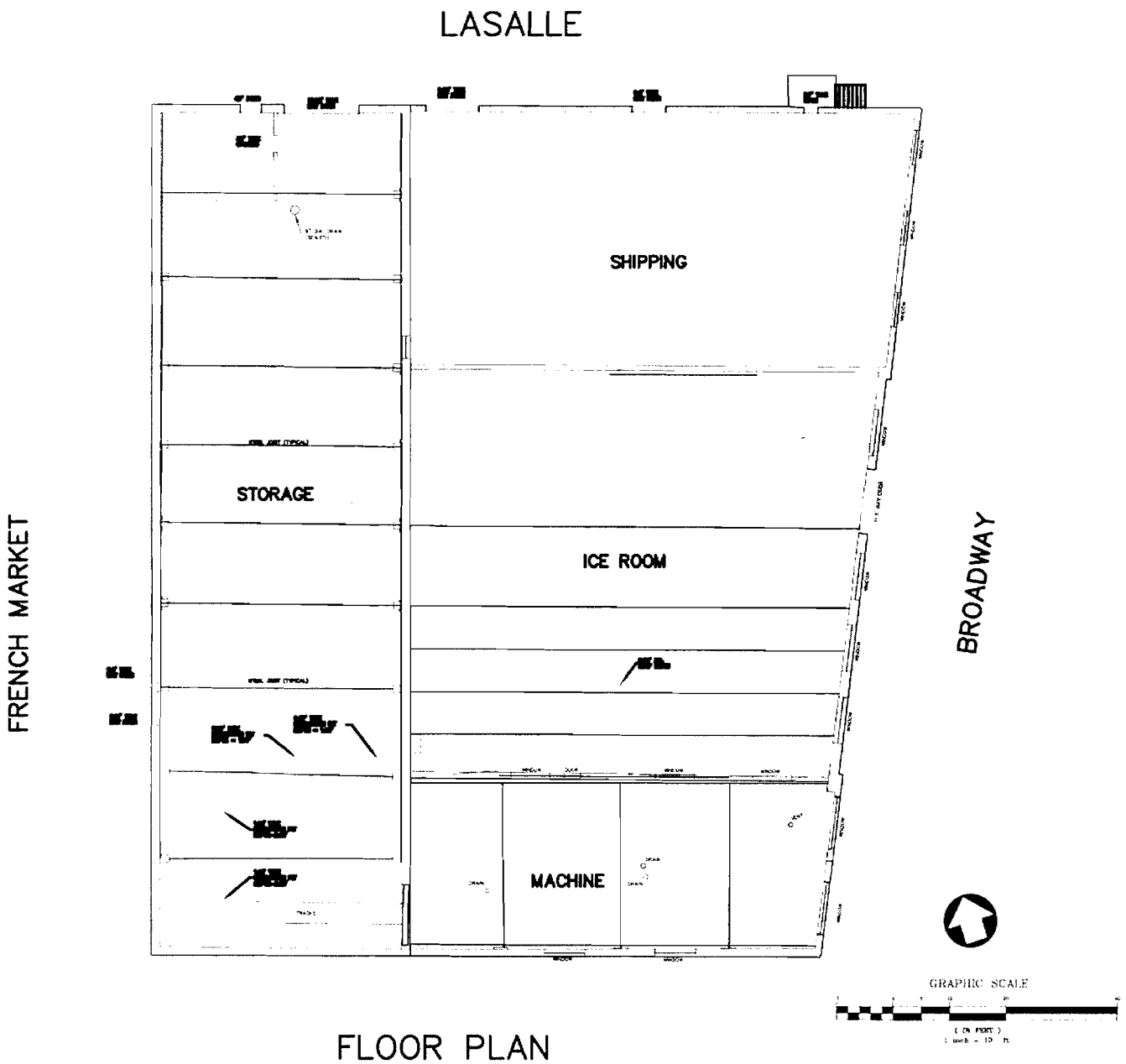
Floor Plan

Courtesy of Gary Berutti, Berutti & Associates, Inc., modifications by Brian Reddy, Suttle Mindlin Architects, LLC.



FLOOR PLAN

Narrative Statement of Significance

Summary

The Polar Wave Ice and Fuel Company, Plant No. 6, located at 502 LaSalle Street, is significant under Criterion A: Industry for its association with the development of the ice industry and the commercial ice trade in St. Louis at the start of the twentieth century. The Polar Wave Ice and Fuel Company was the leading ice manufacturing, storage and retail company in St. Louis, an industry that was important throughout the country prior to the development of home refrigeration. Construction was apparently first completed between 1894 and 1896, but the Polar Wave Ice and Fuel Company, Plant No. 6 was reconstructed or had major repairs started in 1906 and finished in 1907,[1] after consolidation of the Muckerman family ice dynasty, by far the largest ice supplier and manufacturer in the St. Louis metropolitan area. Completed after the St. Louis World's Fair, which had encouraged city leaders to clean up St. Louis's water supply and benefiting the second factory the company had at this location, the Polar Wave Ice and Fuel Company, Plant No. 6 was one of the first ice manufacturing facilities, rather than ice storage facilities, in the area, taking advantage of the new clean water supply to make ice. Designed by noted St. Louis architect Harry G. Clymer,[2] the Polar Wave Ice and Fuel Company, Plant No. 6 is one of the last eleven extant ice manufacturing complexes left in St. Louis and is one of only six remaining plants, and the oldest, connected to Polar Wave, once a vital St. Louis industry. The Polar Wave Ice and Fuel Company, Plant No. 6 has a period of significance from its construction in 1894-1896 to 1947, the last year the ice company was in the building.

Building History

In 1893 a construction permit was taken out to demolish the Lady of Sacred Heart Convent that had been on the block. Although the building permit records do not contain a building permit for another building, by 1897, the Polar Wave Ice Company (a precursor company to the Polar Wave Ice and Fuel Company and also owned by the Muckermann family) had an ice plant on the property, according to the 1897 *Whipple's Fire insurance Map of 1897,* laid out, for use as it is currently, as three interconnected spaces. Although no direct evidence could be found, it appears that the tornado that tore through the area in 1896 likely damaged the building. The growth of the Muckermann Family ice empire may have then delayed major repairs or re-construction. In 1906 a building permit was taken out for a foundation, 119 by 151 feet. A month later a second permit was taken out for a building 151x136 feet on the same site. The discrepancy between the two sizes may be explained if the remains of the original foundation still covered part of the grounds for the new building or it could be reflective of the odd shape of the lot. Based upon building permits and fire insurance maps, Harry G. Clymer designed the reconstructed Plant No. 6 and it was finished all at one time with the same interconnected layout that appears to be multiple buildings on the exterior, but connects internally. [This might be one reason for the two different height foundations.] The plant was originally addressed on Broadway, with plans submitted in late 1906 for a one story brick building. The project finished in 1907, with the building permit projecting a cost of $25,000. This includes the section at the corner of LaSalle and Broadway with the freight dock facing LaSalle, with ice storage at the north end as well as a large "Tank Room." The complex also includes what deceptively appears to be a separate red brick, two-story commercial building to the south end of the complex along Broadway. It served as the manufacturing center with the massive 42-foot cooling tower on its roof and a 120-ton ice machine and large generator housed inside. The monolithic ice storage facility that readily distinguishes this industrial complex as an ice manufacturing facility (a tall building without windows that has slit vents near the top) forms the back drop behind the other two sections. Minor repairs and alterations were made to this original complex in 1919 and again in 1921 by Polar Wave and then again in 1947, when the building changed ownership and was no longer used for ice manufacturing.[3]

The Polar Wave Ice and Fuel Company, Plant No. 6 was built for the manufacture of ice, whereas most if not all of the company's earlier sites were just for ice storage or served as simple retail outlets. It is difficult to verify whether this is their first manufacturing location, or just one of its earliest manufacturing complexes since so many of the other locations have been demolished. What can be verified is that the Polar Wave Ice and Fuel Company, Plant No. 6 is one of only six known remaining historic ice storage and manufacturing facilities left intact in the city, without loss of any of its buildings and without severe integrity problems due to the loss of walls or roof. The Polar Wave Ice and Fuel Company, Plant No. 6 is also the oldest extant ice manufacturing facility associated with St. Louis' largest ice manufacturing company.[4] The Polar Wave Ice and Fuel Company and its predecessor company occupied the building from its completion in 1894-1896 through 1935. In 1936, The Polar Wave Ice and Fuel Company became the City Ice and Fuel Company. The City Ice and Fuel Company maintained the same corporate governance, with John C. Muckerman still acting as

Narrative Statement of Significance (continued)

president, and the identical listings in the city directory for all of the branch locations and manufacturing sites as the Polar Wave Ice and Fuel Company. The City Ice and Fuel Company continued to occupy the building from the time of its formation in 1936 through at least 1947. By 1952 the building housed Mid-Continent Steel Products, the Vitray Manufacturing Company, a maker of kitchen equipment, and the Vitray Porcelain Company, which made storefront components. By 1955, Mid-Continent Steel Products was the only tenant of the building, but these later occupants made few substantial alterations to the large complex except to update the offices and truck entries.[5]

Harry G. Clymer, Architect

As the work of noted St. Louis architect Harry G. Clymer, this is one of a number of his designs for the Polar Wave Company and the Muckermans, including their home as well as other Polar Wave facilities. Born in Illinois, he began his practice as part of the firm of Alfred F. Rosenheim in 1890, but by 1900 he had opened his own office in the Wainwright Building and his early work included this Polar Wave facility, 1905 factories for the Moon Buggy Company and Peters Shoe Company, as well as a number of noteworthy residences, including the 3080 Hawthorne house in Compton Hill, the Charles Gauss house in Washington Terrace, and two 1909 houses in Parkview. Between 1909 and 1916, he worked in partnership with Francis Drischler, starting their collaboration with the 1909 completion of the massive Ford Motor Car Company Building at 4000 Forest Park Boulevard (NR listed). After their partnership dissolved in 1916, he continued to practice in St. Louis through 1930 before relocating to Michigan. While other St. Louis architects concentrated their practice on either residential or commercial design, Clymer successfully executed both. The complexity of the design of the Polar Wave Ice and Fuel Company, Plant No. 6 is a testament to the skill with which Clymer could execute his designs to meet the demands for an industrial complex that required large cold storage facilities as well as manufacturing and shipping capacities.[6]

Ice Manufacturing History

In the early 1800s, the American ice industry was born when Frederick Tudor and Nathaniel Wyeth developed processes to harvest and store ice cut from frozen ponds and rivers.[7] Men would go out to frozen ponds lakes and rivers in the winter and cut large blocks of ice from these bodies of water, especially in the northern United States and Canada. The ice blocks would be packed in straw and sawdust for transport by rail or ship to the rest of the country. The blocks would then be stored in ice houses by the ice harvesting companies for wholesale and retail sale, making ice available year round.[8]

The year-round availability of ice had a major impact on the United States. The ice companies developed insulated refrigeration cars to transport the ice to distant marketplaces. The combination of the insulated cars with straw and sawdust packing around the ice blocks allowed the ice blocks to last for a year or more and experience as little as a ten percent melt rate.[9] These railroad cars also made it possible for meats, dairy and produce to be shipped nationally, creating a national food market. The new refrigeration cars and the ability to acquire ice year round also helped other food industries, particularly the brewing industry, an important aspect of St. Louis' economy (where Anheuser-Busch, Lemp and Falstaff all had breweries historically). Lager style beers use yeast that requires cooler temperatures. The availability of ice kept the fermenting beer from spoiling and made it possible for brewers to manufacture their products year round.[10]

Despite the benefits of natural ice, there was still an ongoing push to develop refrigeration technology. Natural ice was generally available in the northern United States for harvest, but it still relied on nature and the weather. A warm winter could have serious implications for the ice market the following summer because of a smaller supply. In addition, by the end of the nineteenth century, people were becoming aware of the health risks posed by water pollution, raising concerns about the purity of the water that the ice was cut from. The fear of ice tainted by pollution, be it industrial pollution or sewage, combined with a series of unusually warm winters led distributors to begin seeking out new methods of obtaining ice. The solution was the development of mechanical refrigeration, which gave ice companies the ability to make "artificial" ice. The new manufactured ice helped eliminated the concerns about pollution, since the manufacturer could control the source of the water used to make the ice. Manufactured ice also had a second advantage; it could be made where it was needed and did not have to be shipped south on refrigerated rail cars. This saved not only on shipping costs but also helped reduce the amount of ice lost to melting during shipping and storage while guaranteeing a year-round supply of ice everywhere in the country. "Artificial" ice had a quick and dramatic impact on industry in the United States. By 1920,

Narrative Statement of Significance (continued)

industrial census reports stated that 4,800 manufacturing plants had produced 40 million tons of ice, while only fifteen million tons of natural ice had been harvested in the same year. [11]

Whether the ice was naturally harvested or mechanically made, once an ice company had the ice in its warehouse, much of it was distributed in the same way. The ice company would work with icemen, who would work independently or for one of the ice companies selling ice door to door. The icemen would load a wagon with large blocks of ice (50 or 75 pounds) and go door to door around the neighborhoods selling ice to the residents.[12] As the ice men made their rounds, children would follow the cart on hot days hoping to receive a piece of ice to enjoy in the heat. The ice man and his cart, and later his truck, was as much a daily fixture as the mailman or milkman.

As ice companies benefited from the growth in technology that insured a consistent supply of ice, these same technological developments led to the decline of the industry. The new technology made start up costs more expensive for new companies and greatly increased one-time costs to remain in business as existing ice companies switched over to manufacturing ice. In the age of natural ice, an ice company's only capital requirements, after the ice was procured from a source in the north, were a well-insulated building, a supply of saws and straw for insulating and packing the ice, and insulated rail cars to ship the ice south. The ice was purchased in the winter from northern ice harvesters and shipped to the ice house, which would then store it and sell it to the iceman distributors and commercial wholesalers.

After the development of mechanical refrigeration and "artificial" ice, an ice company had tremendous start-up costs. By 1900, construction of a large artificial ice plant could cost nearly one million dollars.[13] Such large start up costs not only led to fewer new companies entering the market, but also put many existing companies out of business when the smaller companies could not compete with the large artificial ice producers. The growth in technology led to consolidation and mergers in the industry nationwide as the largest conglomerates began to control local ice production, with only a few of the largest local ice companies successfully remaining in business as independent companies.[14]

Commercial refrigeration technology further eroded the industry in another way; it inspired research into the possibility of home refrigeration. As early as the first decade of the twentieth century, there were some early attempts to convert the technology to home use. The effort was interrupted by World War I, as was the distribution of natural ice, but after the war this provided even more incentive to adapt refrigeration technology for the home. By the early 1920s, these efforts already resulted in the production of thousands of mechanical refrigerators a year. The development of home refrigeration created such a demand that by 1931, over one million home refrigeration units were manufactured each year, and that number grew to over 6 million by the start of the Second World War.[15] By 1950, over 90 percent of Americans in urban areas owned a refrigerator.[16]

St. Louis Ice Industry

The St. Louis ice industry began as a local effort on a limited basis early in the history of the city. Creve Coeur Lake, west of St. Louis, was used as a source of ice for many winters. Initially, the lake was used by farmers who lived in the area, most of whom had their own ice saws and small ice houses on their farms.[17] Later the Polar Wave Ice and Fuel Company constructed a massive ice house on the west side of the lake. The company had horse drawn saws and employed men around the clock as soon as the ice reached commercial thickness. The ice was cut into channels, so new cut pieces of ice could be floated through the channel to a conveyor belt that took the ice to the ice house, where it was packed in sawdust to await shipment on the Missouri Pacific Railroad to St. Louis, which occurred as needed.

Even after the development of artificial ice making technology, St. Louis still acquired much of its ice from natural sources. This was necessary because St. Louis' water supply did not deliver clean water suitable for making ice. The city had water settling basin facilities at Bissel's Point and the Chain of Rocks on the Mississippi River, which precipitated the heavy material that had given St. Louis water the consistency of gruel—water straight out of the tap had to be allowed to settle before it could be consumed, leaving a layer of river mud behind in the glass.[18] St. Louis Mayor Erastus Wells began to address the problem in 1901 as part of the improvements for the impending World's Fair. Under pressure from the Louisiana Purchase Exposition President D. R. Francis,

Narrative Statement of Significance (continued)

Mayor Wells sought ways of improving the city's water purification system. One of the highlights of the fair was to be the water display, consisting of three giant cascades of leaping, sparkling water, two great fountains, a grand basin, and radiating lagoons.[19] The directors of the fair constantly worried about dark brown water destroying the plans for the fountain and the image the city wanted to project at the World's Fair. On March 21, 1904, only weeks before the exposition was to begin, every tap in the city was discharging unusually clean and pure water. With the addition of iron and milk of lime to the water supply at the Chain of Rocks purification facility, St. Louis enjoyed clear water for the first time in its history.[20] With St. Louis' provision of mud-free water for the World's Fair, ice manufacturing was feasible for the first time in the region. The development of consistently clean water was a boon for the ice companies as they were able to begin the conversion to ice manufacturing instead of ice harvesting and storage.

In the late nineteenth century, St. Louis was a productive arena for ice companies, with at least four ice storage companies occupying at least eight sites as early as 1895, before the water works delivered clean water. The American Ice and Coal Company occupied two locations, one southwest of downtown at 2702 Lafayette Avenue and one west of downtown at 4151 Manchester Avenue.[21] The Union Ice Company had a site at 2607 Gamble, built about 1894.[22] The Muckerman Ice and Coal Company, founded by Christian Muckermann in 1889 and absorbed by the Polar Wave Ice and Fuel Company in 1903, had a location at 1100 South Twelfth Street and one at 3725 North Eleventh Street.[23] The Polar Wave Ice Company, one of the other predecessors to Polar Wave Ice and Fuel Company, had also entered business with locations at 2620 Walnut, 3860 Laclede Avenue and 5360 Easton (now Dr. Martin Luther King Jr. Drive), as well as the location at Broadway and LaSalle that is known as Plant No. 6. Of these early facilities, only the Union Ice Company location, has not been demolished, with the possible exception of the reconstructed Plant No. 6.[24]

After 1905, the year after the Polar Wave Ice and Fuel Company consolidated and the city's water supply had been cleaned up, ice manufacturing and distribution expanded rapidly in St. Louis. In its heyday, this industry had at least 178 sites in St. Louis, 75 of which were associated with Polar Wave. These were either ice houses or ice company retail/distributorship locations. Of these locations, the vast majority were simple retail outlets, storefront locations within neighborhoods throughout the city, and few were actual manufacturing locations. In evaluating these sites, it was difficult to determine exact numbers of manufacturing locations, ice storage facilities and simple storefront locations, since most of the buildings have been demolished, leaving no clues as to the original building form. Even so, only eighteen possible retail locations remain that were specifically listed by the ice companies in the city directories (presumably making these locations major outlets), and only five of these were connected to the Polar Wave Ice and Fuel Company and like the other thirteen sites, most have little historic integrity left. [25]

Of the extant historic ice manufacturing sites, there are eleven locations that were obviously manufacturing complexes and six of these are Polar Wave Ice and Fuel Company manufacturing complexes. However, only five of these appear to be completely intact, while the others retain only portions of the building or have had massive modifications made to the building. For example, one of the Polar Wave complexes in north St. Louis is still standing at 4401 Maffit, but portions of the shipping dock wall are missing and another Polar Wave location in the south city at Gravois and Victor has a damaged wall and missing roof, with a large tree growing out the top of the ice storage building. Non-Polar Wave manufacturing facilities have suffered equally. For example, the Central Branch for Merchants Ice and Coal Company is a smaller ice plant at 2101 Chouteau Avenue, but it appears that large sections of the rear building have been rebuilt in concrete block and the Carondelet Ice Manufacturing and Fuel Company at 120 E. Kraus, in the far south end of the city's riverfront, is either a very small complex or missing some portions of the historic plant. The only extant facility that pre-dates Polar Wave's Plant No. 6, the Union Ice Company location at 2607 Gamble has been heavily modified with steel panels cladding the upper level of the building. Of the five intact plants, all but one are associated with Polar Wave. The huge Terminal Car Icing Company plant on Brooklyn Road was first listed in city directories in 1924, but it is still in use for a related business, cold storage. The four intact Polar Wave locations are scattered around the city, with the oldest being the 1907 Plant No. 6 at 502 LaSalle (the nominated property), and the next oldest was in operation by 1910 at 1426 Howard in north St. Louis. The other two remaining Polar Wave ice plants were both finished in the 1920s to meet the growing demand, one in Soulard just a few blocks south of Plant No. 6 at 2400-2408 S. 9th Street and the other on the western edge of the city at 6801 Arsenal.[26]

Narrative Statement of Significance

Polar Wave Ice and Fuel Company History

The Polar Wave Ice and Fuel Company, the name which would become synonymous with the iceman in St. Louis, traces it origins to a German immigrant, Christopher Muckermann, who started the Muckermann Brothers Ice Company with his brothers John and Edward after the end of his enlistment in the Union Army and the end of the Civil War. The Muckermann Brothers Ice Company soon dissolved, but John and Christopher started new ice companies while Edward bought a farm in Creve Coeur, near Creve Coeur Lake where the brothers harvested ice for their companies. Despite the business competition between John and Christopher, the two brothers and their families shared a house while both successfully running their respective ice companies. Throughout the early years, the Muckermanns procured ice from Creve Coeur Lake and King's Lake in nearby Lincoln County, Illinois (north of St. Louis) as well as shipped ice from Peoria, Illinois and points further north.[27]

The Muckermann brothers took advantage of the new, clean water supply by consolidating their various ice companies into a single business. The Polar Wave Ice and Fuel Company was formed through the consolidation of the Union Ice Company, the Polar Wave Ice Company, the Muckermann Ice and Coal Company, and the American Ice and Coal Company in 1904.[28] The Muckerman family (which dropped the 'n' from the family name around this time) controlled and ran all of the aforementioned companies simultaneously prior to consolidation in 1904.[29] The Polar Wave Ice and Fuel Company went on to become a division of the City Products Corporation by the 1950s, when coin-operated vending "houses" were placed throughout St. Louis city and county.[30] The original founder, Christopher Muckerman passed on the operations of the company to J.C. Muckerman. J.C. Muckerman passed the company to Richard C. Muckerman.[31] Richard Muckerman eventually accumulated enough wealth to purchase the St. Louis Browns baseball club in 1945.[32] The Muckerman family had truly become as much a part of St. Louis history as had the Polar Wave Ice and Fuel Company.

The Polar Wave Ice and Fuel Company played an especially significant role in the development of the ice industry in St. Louis as the largest ice manufacturer in the metropolitan area. At the company's height, in 1924, it operated over 54 facilities in the city of St. Louis and in St. Louis County.[33] The next largest dealer of ice in the market was the Merchants Ice and Coal Company, which operated only 9 locations in the early twentieth century.[34] Polar Wave even eventually faced an anti-trust lawsuit, filed by the Circuit Attorney of St. Louis, Arthur N. Sager, and the company was fined $50,000.00 for violations of Missouri's anti-trust laws. Polar Wave had to pay the fine or face dissolution of the company under Missouri law.[35] This suit demonstrates the impact of the Polar Wave Ice and Fuel Company on the local ice market. The company had grown from a small family run business into an industrial giant that ran afoul of government anti-trust laws. Despite this growth, the company still faced eventual decline as the refrigerator cut deeper and deeper into the sale of ice to homes. The Polar Wave Ice and Fuel Company faced a slow decline relying on fuel sales and a much reduced ice market to survive into the 1940s, but by the 1950s the company had been purchased by the City Products Corporation and the last of the independent St. Louis ice companies went out of business.

The Polar Wave Ice and Fuel Company, Plant No. 6 at 506 LaSalle St. is especially significant because the Polar Wave Ice and Fuel Company re-built it shortly after the Muckerman family consolidated their family enterprises to form the Polar Wave Ice and Fuel Company in 1904. This plant was also finished shortly after the City of St. Louis had taken steps to purify its once "sludgy" water supply for the arrival of the St. Louis World's Fair, also in 1904, making ice manufacturing feasible and safe. As one of the last remaining examples of the ice industry in St. Louis, as well as the oldest and one of the last remaining ice manufacturing sites for the Polar Wave Ice and Fuel Company, its Plant No. 6 is locally significant under Criterion A: Industry for its role in the ice industry from the time the building was completed in 1894-1896 until the company moved out of the building in 1947.

Narrative Statement of Significance

Endnotes

[1]"Construction News. Building Permits. Brick." *St. Louis Daily Record,* 13 November 1906, 4; "Construction News. Building Permits. Brick." *St. Louis Daily Record,* 20 November 1906, 4; "Oliver & Whipple's Fire Insurance Map of St. Louis, MO." (St. Louis: Whipple Map Company,) 1876 [Vol. 1]; "Whipple's Fire Insurance Map of St. Louis, MO." (St. Louis: Whipple Map Company,) 1892 [Vol. 1]; "Whipple's Fire Insurance Map of St. Louis, MO." (St. Louis: Whipple Map Company,) 1897 [Vol. 1]; St. Louis. Inactive and Active Building Permits, City Block 155.

[2]Ibid.

[3]"Construction News. Building Permits. Brick." *St. Louis Daily Record,* 13 November 1906, 4; "Construction News. Building Permits. Brick." *St. Louis Daily Record,* 20 November 1906, 4; "Building News. St. Louis Permits. Brick." *St. Louis Daily Record,* 29 April 1919, 4; "Building News. St. Louis Permits. Brick." *St. Louis Daily Record,* 18 November 1921, 4; "Building News. St. Louis City. St. Louis Permits. Brick." *St. Louis Daily Record,* 13 August 1947, 8; "Fire Insurance Map of St. Louis, MO." (New York: Sanborn Map Company,) 1908 [Vol. 1], 98 and 1932 corrected to 1950 [Vol. 1 East], 98; ; "Oliver & Whipple's Fire Insurance Map of St. Louis, MO." (St. Louis: Whipple Map Company,) 1876 [Vol. 1]; "Whipple's Fire Insurance Map of St. Louis, MO." (St. Louis: Whipple Map Company,) 1892 [Vol. 1]; "Whipple's Fire Insurance Map of St. Louis, MO." (St. Louis: Whipple Map Company,) 1897 [Vol. 1]; St. Louis. Inactive and Active Building Permits, City Block 155.

[4]Karen Bode Baxter, Sara Bularzik, Timothy P. Maloney and Kevin O'Sullivan, Informal Windshield Survey of Icehouses in St. Louis, Summer 2004-Summer 2005.

[5]*Gould's Commercial Register for 1889* (St. Louis: Gould Directory Co., 1889) 909,1525; *Gould's Commercial Register for 1890* (St. Louis: Gould Directory Co., 1890) 940,1040,1581; *Gould's Commercial Register for 1895* (St. Louis: Gould Directory Co., 1895) 244-246; *Gould's Commercial Register (Business Directory) of the City of Saint Louis, (1903)* (St. Louis: Gould Directory Co., 1903) 2343; *Gould's Commercial Register for 1904* (St. Louis: Gould Directory Co., 1904) 2559; *Gould's Commercial Register for 1905*(St. Louis: Gould Directory Co., 1905) 1531; *Gould's Commercial Register (Business Directory of the City of Saint Louis, (1906)*(St. Louis: Gould Directory Co., 1906) 111; *Gould's Commercial Register (Business Directory of the City of Saint Louis, (1908)* (St. Louis: Gould Directory Co., 1908) 802; *Gould's Commercial Register for 1910* (St. Louis: Gould Directory Co., 1910) 1457; *Gould's Commercial Register for 1912* (St. Louis: Gould Directory Co., 1912) 1459; *Gould's Commercial Register for 1913* (St. Louis: Gould Directory Co., 1913) 1684; *Gould's Commercial Register for 1914* (St. Louis: Gould Directory Co., 1914) 1690; *Gould's Commercial Register for 1915* (St. Louis: Gould Directory Co., 1915) 1663; *Gould's St. Louis Directory,* (St. Louis: Polk-Gould Directory Co., 1920) 2149; *Gould's St. Louis (Missouri) City Directory,* (St. Louis: Polk-Gould Directory Co., 1925) 2068, *Gould's St. Louis (Missouri) City Directory,* (St. Louis: Polk-Gould Directory Co., 1930) 1180, 1912; *Gould's St. Louis (Missouri) City Directory,* (St. Louis: Polk-Gould Directory Co., 1932) 1627; *Gould's St. Louis (Missouri) City Directory,* (St. Louis: Polk-Gould Directory Co., 1935) 1691; *Gould's St. Louis (Missouri) City Directory,* (St. Louis: Polk-Gould Directory Co., 1936) 1684; *Gould's St. Louis (Missouri) City Directory,* (St. Louis: Polk-Gould Directory Co., 1938) 1658; *Gould's St. Louis (Missouri) City Directory,* (St. Louis: Polk-Gould Directory Co., 1940) 1726; *Gould's St. Louis (Missouri) City Directory,* (St. Louis: Polk-Gould Directory Co., 1942) 1893; *Gould's St. Louis (Missouri) City Directory,* (St. Louis: Polk-Gould Directory Co., 1944) 1699, *Gould's St. Louis (Missouri) City Directory,* (St. Louis: Polk-Gould Directory Co., 1946) 1808; *Gould's St. Louis (Missouri) City Directory,* (St. Louis: Polk-Gould Directory Co., 1947-48) 1880; *Gould's St. Louis (Missouri) City Directory,* (St. Louis: Polk-Gould Directory Co., 1952) 273; *Gould's St. Louis (Missouri) City Directory,* (St. Louis: Polk-Gould Directory Co., 1955) 259.

[6]Carolyn Hewes Toft, "St. Louis Architects: Famous and Not So Famous (Part 5)," *Landmarks Letter,* (May 1985); Carolyn Hewes Toft and Jane Molloy Porter, *Compton Heights: A History and Architectural Guide* (St. Louis: Landmarks Association of St. Louis, 1984) 41; Carolyn Hewes Toft and Lynn Josse, *St. Louis: Landmarks and Historic Districts.* (St. Louis: Landmarks Association of St. Louis, 2002) 69. *The Western Architect,* XXIII, St. Louis Number, Vol. XXIII, No. 6 (June 1916).

[7]Elizabeth Rosin, Historic Preservation Services, LLC, "Mutual Ice Company Building," (Jackson County, MO). National Register of Historic Places Inventory Nomination Form, 2004, section 8, 6.

Narrative Statement of Significance

[8]Rosin, section 8, 7.

[9]Ibid.

[10]Ibid.; Carolyn Hewes Toft and Lynn Josse, *St. Louis: Landmarks and Historic Districts*, (St. Louis: Landmarks Association of St. Louis, 2002) 181, 186-187.

[11]Rosin, section 8, 7.

[12]"The Muckerman Heritage" *Affairs-The Society Magazine*, (November 1988) 13.

[13]Rosin, section 8, 8.

[14]Ibid.

[15]Ibid. Section 8 7.

[16]Ibid.

[17]*Heritage of the Creve Coeur Area* (St. Louis: The City of Creve Coeur, 1976) 144.

[18]James Neal Primm, *Lion of the Valley: St. Louis, Missouri, 1764-1980.* 3d ed. (St. Louis: Missouri Historical Society, 1998) 379.

[19]Ibid, 380.

[20]Ibid.

[21] Baxter, Bularzik, Maloney and O'Sullivan; *Gould's Commercial Register for 1895* (St. Louis: Gould Directory Co., 1895) 244-246.

[22]Ibid.

[23]Ibid.; *Gould's Commercial Register (Business Directory) of the City of Saint Louis, 1903)* (St. Louis: Gould Directory Co., 1903) 2343; *Gould's Commercial Register for 1904* (St. Louis: Gould Directory Co., 1904) 2559; *Gould St. Louis Directory for 1892* (St. Louis: Gould Directory Co., 1892).

[24]Ibid; *Gould's Commercial Register for 1895* (St. Louis: Gould Directory Co., 1895) 244-246.

[25]Baxter, Bularzik, Maloney and O'Sullivan.

[26]Ibid.

[27]"The Muckerman Heritage" 12.

[28]Ibid.

[29]Ibid.

[30]Ibid, 13.

[31]Ibid.

[32]Ibid.

Narrative Statement of Significance

[33]*Gould's Commercial Register for 1889* (St. Louis: Gould Directory Co., 1889) 909, 1525; *Gould's Commercial Register for 1890* (St. Louis: Gould Directory Co., 1890) 940,1040,1581; *Gould's Commercial Register for 1895* (St. Louis: Gould Directory Co., 1895) 244-246; *Gould's Commercial Register (Business Directory) of the City of Saint Louis, (1903)* (St. Louis: Gould Directory Co., 1903) 2343; *Gould's Commercial Register for 1904* (St. Louis: Gould Directory Co., 1904) 2559; *Gould's Commercial Register for 1905*(St. Louis: Gould Directory Co., 1905) 1531; *Gould's Commercial Register (Business Directory of the City of Saint Louis, (1906)*(St. Louis: Gould Directory Co., 1906) 111; *Gould's Commercial Register (Business Directory of the City of Saint Louis, (1908)* (St. Louis: Gould Directory Co., 1908) 802; *Gould's Commercial Register for 1910* (St. Louis: Gould Directory Co., 1910) 1457; *St. Louis Classified Telephone Directory for 1924* (St. Louis, 1924) 190-191.

[34] *Gould's Commercial Register for 1889* (St. Louis: Gould Directory Co., 1889) 909, 1525; *Gould's Commercial Register for 1890* (St. Louis: Gould Directory Co., 1890) 940,1040,1581; *Gould's Commercial Register for 1895* (St. Louis: Gould Directory Co., 1895) 244-246; *Gould's Commercial Register (Business Directory) of the City of Saint Louis, (1903)* (St. Louis: Gould Directory Co., 1903) 2343; *Gould's Commercial Register for 1904* (St. Louis: Gould Directory Co., 1904) 2559; *Gould's Commercial Register for 1905*(St. Louis: Gould Directory Co., 1905) 1531; *Gould's Commercial Register (Business Directory of the City of Saint Louis, (1906)*(St. Louis: Gould Directory Co., 1906) 111; *Gould's Commercial Register (Business Directory of the City of Saint Louis, (1908)* (St. Louis: Gould Directory Co., 1908) 802; *Gould's Commercial Register for 1910* (St. Louis: Gould Directory Co., 1910) 1457; *Gould's Blue Book for St. Louis* (St. Louis: Gould Directory Co., 1914).

[35]"Polar Wave Trust; Must Pay $50,000" n.d., Clipping from St. Louis Public Library, Central Branch.

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Verbal Boundary Description
Beginning at the south side of the intersection of LaSalle and French Market Court, proceed southwardly 151 feet along the east side of French Market Court to the southwest corner of the property, thence eastwardly to the west side of Broadway at the southeast corner of the property, thence northwardly along the west side of Broadway to the south side of the intersection of Broadway and LaSalle at the northeast corner of the property, thence westwardly along the south side of LaSalle to the point of beginning.

Boundary Justification
These boundaries incorporate all of the property that has been historically associated with this building and these boundaries correspond to the property's legal description.

Photo Log

Photographer: Sheila Findall
July 2004
Negatives with preparer: Karen Bode Baxter, 5811 Delor Street, St. Louis, MO 63109

Photo #1: Exterior, east façade and north façade, facing southwest

Photo #2: Exterior, north façade, east end, and east façade, facing south-southwest

Photo #3: Exterior, north façade, west end, and west façade, facing south-southeast

Photo #4: Exterior, west façade and south façade, facing north-northeast

Photo #5: Exterior, south façade, east end, and east façade, facing northwest

Photographer: Sheila Findall
May 2005
Negatives with preparer: Karen Bode Baxter, 5811 Delor Street, St. Louis, MO 63109

Photo #6: Interior, ice room (middle section on northeast one story building unit) from southeast looking northwest at west and north walls

Photo #7: Interior, ice room from mudroom looking up and northeast into clearstory

Photo #8: Interior from northwest corner of ice room looking south southeast across ice room into machine room (south end section)

Photo #9: Interior of machine room from mid-south wall looking up at northeast corner and north façade bay window

Photo #10: Interior of machine room from east wall looking west showing dock into the ice storage section (west side)

Photo #11: Interior of ice storage section from south end looking north

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

USGS science for a changing world

Polar Wave Ice and Fuel Company, Plant No. 6
St. Louis (Independent City) Mo
UTM Reference:
15/744280/4277920

Polar Wave Ice and Fuel Company, Plant No. 6
St. Louis (Independent City) MO.
Photo # 1

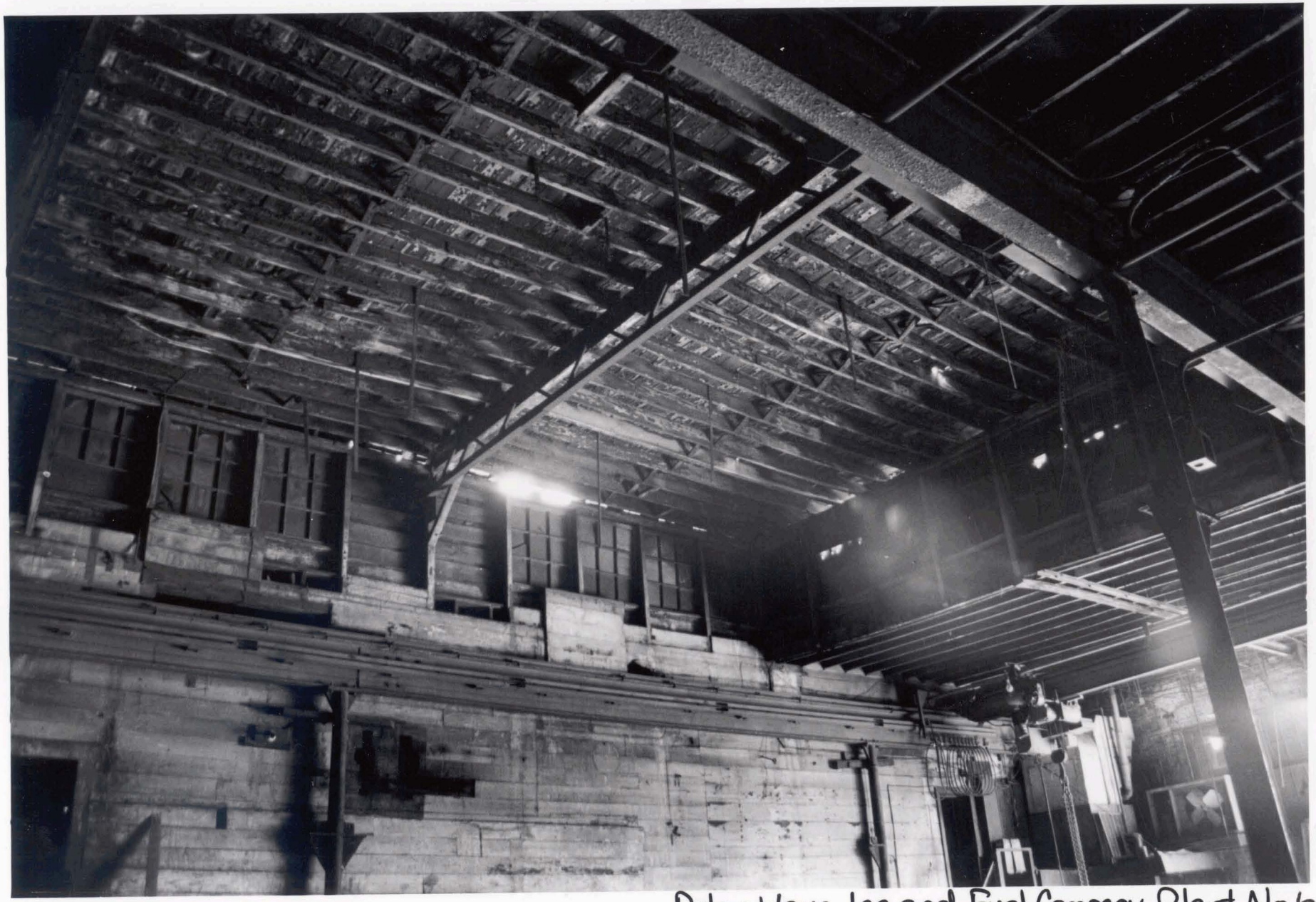
Polar Wave Ice and Fuel Company, Plant No. 6
St. Louis (Independent City) Mo.
Photo # 2

Polar Wave Ice and Fuel Company, Plant No 6
St. Louis (Independent City) Mo.
Photo #3

Polar Wave Ice and Fuel Company, Plant No. 6
St. Louis (Independent City) Mo.
Photo #4

Polar Wave Ice and Fuel Company, Plant No 6
St. Louis (Independent City) Mo.
Photo #5

Polar Wave Ice and Fuel Company, Plant No. 6
St. Louis (Independent City) MO.
Photo #6



Polar Wave Ice and Fuel Company, Plant No. 6
St. Louis (Independent City) Mo.
Photo # 7

Polar Wave Ice and Fuel Company, Plant No. 6
St. Louis (Independent City) MO.
Photo #8

Polar Wave Ice and Fuel Company, Plant No. 6
St. Louis (Independent City) MO.
Photo #9

Polar Wave Ice and Fuel Company, Plant No.6
St. Louis (Independent City) MO.
Photo # 10

Polar Wave Ice and Fuel Company Plant No. 6
St. Louis (Independent City) MO.
Photo # 11